

Serial Nr.: 09/832,048
Art Unit: 1762

UPA-01235

said article or substance, and said second solvent mediates solubility between said first mixture and said nucleic acid.

17. (New) The method as claimed in claim 16, wherein said water-insoluble medium comprises a polymeric substance.

18. (New) The method as claimed in claim 17, wherein said polymeric comprises polycarbonate (PC).

19. (New) The method as claimed in claim 16, wherein said first solvent comprises an organic solvent.

20. (New) The method as claimed in claim 19, wherein said organic solvent comprises chloroform.

21. (New) The method as claimed in claim 16, wherein said second solvent comprises ethanol.

22. (New) The method as claimed in claim 16, wherein said second solvent comprises acetone.

23. (New) The method as claimed in claim 16, wherein said nucleic acid is selected from a group consisting of a natural nucleic acid and a synthetic nucleic acid.

24. (New) The method as claimed in claim 23, wherein said synthetic nucleic acid comprises a synthetic vector.

25. (New) The method as claimed in claim 23, wherein said synthetic nucleic acid comprises a nucleic acid fragment.

Serial Nr.: 09/832,048
Art Unit: 1762

UPA-01235

26. (New) A method of labeling a liquid article or substance, comprising the steps of:

dissolving a water-insoluble medium in a first solvent to form a first mixture;

dissolving nucleic acid in a second solvent to form a second mixture;

mixing said second mixture with said first mixture to form a third mixture containing said nucleic acid; and

mixing and labeling said article or substance with said third mixture;

wherein said water-insoluble medium is an inert medium which is not deteriorative to said article or substance, and said second solvent mediates solubility between said first mixture and said nucleic acid.

27. (New) The method as claimed in claim 26, wherein said water-insoluble medium comprises a polymeric substance.

28. (New) The method as claimed in claim 27, wherein said polymeric substance is selected from a group consisting of polycarbonate (PC).

29. (New) The method as claimed in claim 26, wherein said first solvent comprises an organic solvent.

30. (New) The method as claimed in claim 29, wherein said organic solvent comprises chloroform.

31. (New) The method as claimed in claim 26, wherein said second solvent comprises ethanol.

32. (New) The method as claimed in claim 26, wherein said second solvent comprises acetone.

Serial Nr.: 09/832,048
Art Unit: 1762

UPA-01235

33. (New) The method as claimed in claim 26, wherein said nucleic acid is selected from a group of a natural nucleic acid and a synthetic nucleic acid.

34. (New) The method as claimed in claim 33, wherein said synthetic nucleic acid comprises a synthetic vector.

35. (New) The method as claimed in claim 33, wherein said synthetic nucleic acid comprises a nucleic acid fragment.

36. (New) A method for authenticating a labeling on an article or substance labeled with nucleic, said method comprising the steps of:
dissolving a portion of a labeled article or substance with a solvent;
sampling said nucleic acid from said solvent containing said labeling; and
detecting said nucleic acid.

37. (New) The method as claimed in claim 36, wherein the step of detecting said nucleic acid comprises a step of polymerase chain reaction.

38. (New) The method as claimed in claim 36, wherein said solvent comprises an organic solvent.

39. (New) The method as claimed in claim 38, wherein said organic solvent comprises chloroform.